



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**BIWEEKLY 2000-14**

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## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; + - See AD for additional information.			
<b>Biweekly 2000-01</b>			
99-27-01		Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219
99-27-03		Fokker	F27 Mark 050 Series
99-27-04		Rolls-Royce	Engine: Dart 506, 510, 511, 514, 525, 526, 529, 530, +
99-27-05		Boeing	767-200, -300, and -300F Series
99-27-06		Boeing	757-200, -200PF, and -200CB Series
99-27-07	S 98-25-53	Airbus	A300 B4-600R and A300 F4-600R Series
99-27-08		SAAB	SAAB SF340A and SAAB 340B Series
99-27-09		Airbus	A300 B4-203 Series
99-27-10		Airbus	A310 and A300-600 Series
99-27-11		British Aerospace	BAC 1-11 200 and 400 Series
99-27-13		Fokker	F27 Mark 050 Series
99-27-14	S 99-01-15	Airbus	A340-211, -212-, -213, -311, -312, and -313 Series
99-27-15		General Electric	Engine: GE90-76B, -77B, -85B, -90B, and -92B
99-27-16		CFE	Engine: CFE738-1-1B
2000-01-51	E	Bombardier	CL-600-2B16 (CL-604)
<b>Biweekly 2000-02</b>			
98-19-15 R1	R 98-19-15	Fairchild	SA226-T, SA226-T(B), SA226-AT, SA226-TC +
99-26-21		Boeing	737-300, -400, -500, -600, -700, and -800 Series
2000-01-01		Airbus	A300 B2-1A, B2-1C, B2-203, B2K-3C, B4-103, B4-2C +
2000-01-02		Raytheon	BAe.125 Series 1000A and 1000B and Hawker 1000 Series
2000-01-03		SAAB	SAAB 2000 Series
2000-01-04		SAAB	SAAB 2000 Series
2000-01-07		Bombardier	DHC-8-100, -200, and -300 Series
2000-01-08		British Aerospace	ATP
2000-01-09		General Electric	Engine: CJ610 Series and CF700 Series
2000-01-12	S 97-14-11	Bombardier	CL-600-2B19 (Regional Jet Series 100) Series
2000-01-13	S 99-08-12	Pratt & Whitney	Engine: JT9D-7, -7A, -7H, -7AH, -7F, -7J, -20, -20J +
2000-01-14		Boeing	777 Series
2000-01-15		Fokker	F27 Mark 050 Series
2000-01-17		McDonnell Douglas	MD-90 Series
2000-01-18		McDonnell Douglas	DC-8 Series
2000-01-51		Bombardier	CL-604 variant of Canadair Model CL-600-2B16 Series
2000-02-01		McDonnell Douglas	DC-8 Series
2000-02-02		Short Brothers	SD3-60 SHERPA, SD3-SHERPA Series and SD3-30 Series
2000-02-03		Boeing	737-300, -400, and -500 Series
2000-02-04		Airbus	A300 Series, A300-600, and A310 Series
2000-02-13		Bombardier	DHC-8-100, -200, and -300 Series
<b>Biweekly 2000-03</b>			
99-26-03	COR	McDonnell Douglas	MD-11 Series
2000-02-05	S 98-24-01	British Aerospace	Jetstream 4101
2000-02-06		Bombardier	DHC-8-100, -200, and -300 Series
2000-02-07		Bombardier	DHC-7-100 Series
2000-02-08		Dornier	328-100 Series
2000-02-10		Boeing	747 Series
2000-02-11		Boeing	777-200 Series
2000-02-15		Raytheon	65-90, 65-A90, B90, and C90
2000-02-17		Rolls-Royce	Engine: RB211 Trent 768-60, 772-60, and 772B-60 Series
2000-02-18	S 97-09-14	Boeing	737-100, -200, -300, -400, and -500 Series
2000-02-19	S 90-02-16	Boeing	727 Series
2000-02-20	S 95-13-12 R1	Boeing	767 Series
2000-02-21		British Aerospace	Jetstream 4101

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### Biweekly 2000-03...Cont'd

2000-02-22		Boeing	747-400 Series
2000-02-23		McDonnell Douglas	DC-9-10, -20, -30, -40, and -50 Series and DC-9-81, +
2000-02-24		Airbus	A300, A310, and A300-600 Series
2000-02-33		Boeing	747-400 Series
2000-02-34		Bombardier	CL-600-2B19 (Regional Jet Series 100) Series
2000-02-35		Raytheon	DH.125, HS.125, BH.125 Series 1A, 1B, 3A, 400A, +
2000-02-36	S 98-20-10	Airbus	A319, A320, and A321 Series
2000-02-37		Boeing	747 Series
2000-02-38	S 91-20-07	Airbus	A300, A300-600, and A310 Series
2000-03-01		Boeing	747-100 and -200 Series
2000-03-02		General Electric	Engine: GE90-90B, -85B, and -76B Series
2000-03-03		General Electric	Engine: CF34-3A1 and -3B1 Series

### Biweekly 2000-04

99-23-26 R1		General Electric	Engine: CF34-1A, CF34-3A, -3A1, -3A2, and CF34-3B +
2000-02-27		Embraer - Empresa Brasileira	EMB-110P1 and EMB-110P2
2000-02-39		Airbus	A300 Series
2000-03-04		General Electric	Engine: CF6-80C2 Series turbofan
2000-03-05		Boeing	737-200 Series
2000-03-07		Rolls-Royce	Engine: RB211-524H-36 Series turbofan
2000-03-08		McDonnell Douglas	MD-90-30
2000-03-10		McDonnell Douglas	MD-11 Series
2000-03-11		McDonnell Douglas	MD-11 Series
2000-03-12		McDonnell Douglas	MD-11 Series
2000-03-13		McDonnell Douglas	MD-11 Series
2000-03-14		McDonnell Douglas	MD-11 Series
2000-03-15		McDonnell Douglas	MD-11 and MD-11F Series
2000-03-16		McDonnell Douglas	MD-11 Series
2000-03-17	S 97-23-01	Fairchild	SA226 and SA227 Series
2000-03-20		Airbus	A300-600
2000-03-21		Boeing	767
2000-03-22		Boeing	747-100, -200, and 747SP Series
2000-04-02		Boeing	737-100, -200, -300, -400, and -500 Series
2000-04-03		McDonnell Douglas	DC-3 and DC-4 Series
2000-04-04		Fokker	F.28 Mark 0070 and 0100 Series
2000-04-05		Israel	Astra SPX Series
2000-04-06		Airbus	A319, A320, and A321 Series
2000-04-07		British Aerospace	ATP
2000-04-08		Boeing	737-200C Series
2000-04-09		Embraer - Empresa Brasileira	EMB-135 and EMB-145 Series
2000-04-10		Hoffmann	Propeller: HO27( ) and HO4/27 Series
2000-04-11		Airbus	A319, A320, and A321 Series

### Biweekly 2000-05

98-21-21	R1	Bob Fields Aerocessories	Appliance: Electric inflatable door seals
2000-03-51		McDonnell Douglas	DC-9, MD-90-30, 717-200, and MD-88
2000-04-12		Cameron	Appliance: Titanium Propane Cylinders
2000-04-13		Aerospatiale	ATR72 Series
2000-04-14		General Electric	Engine: CF6-80C2 A1/A2/A3/A5/A8/A5F/B1/B2/B4/B6 +
2000-04-17		Boeing	747-100, -200, and -300 Series
2000-04-18		Boeing	757 Series
2000-04-19		Dassault	Mystere-Falcon 50 Series
2000-04-22		Rolls-Royce	Engine: RB211-524G2-T-19, RB211-524G3-T-19, +
2000-04-23		Dornier	328-100 Series and 328-300 Series

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2000-05-09		Boeing	757-200, -200PF, and -200CB Series
2000-05-10		General Electric	Engine: GE90-85B Series turbofan
<b>Biweekly 2000-06</b>			
2000-03-03	COR	General Electric	Engine: CF34-3A1 and -3B1 Series turbofan
2000-04-24		Honeywell International	Appliance: 36-300(A), 36-280(B), and 36-280(D) Series
2000-05-01		McDonnell Douglas	MD-11 Series
2000-05-02		Fokker	F27 Mark 050, 200, 500, and 600 Series
2000-05-04		Airbus	A330 and A340 Series
2000-05-05		Construcciones Aeronauticas	CN-235-100 and CN-235-200 Series
2000-05-07		Airbus	A300 and A300-600 Series
2000-05-08		Airbus	A319 and A321 Series
2000-05-14	S 80-22-53	AlliedSignal	Engine: ALF502 and LF507 Series turbofan
2000-05-18		Airbus	A300, A310, and A300-600 Series
2000-05-19		Boeing	727 Series
2000-05-20		Dassault	Fan Jet Falcon, Mystere-Falcon 20, 50, 00, and 900 Series +
2000-05-21		Airbus	A319, A320, A321, A330, and A340 Series
2000-05-24		Honeywell International	Appliance: KAP 140 or KFC 225 autopilot system
2000-05-25	S 96-14-09	British Aerospace	BAe 146-100A, and -300 Series
2000-05-26	S 93-18-04	Aerospatiale	ATR42-200, ATR42-300, and ATR42-320 Series
2000-05-27	S 98-21-06	British Aerospace	BAe 146-100A, -200A, and -300A Series
2000-05-28		British Aerospace	BAe 146 and Avro 146-RJ Series
2000-05-29		Boeing	737-100, -200, -300, -400, and -500 Series
2000-05-30		Boeing	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300 +
2000-06-02		Dornier	228-100, 228-101, 228-200, 228-201, 228-202, +
2000-06-04		Fairchild	SA226-T, SA226-AT, SA226-T(B), SA227-AT, +
<b>Biweekly 2000-07</b>			
2000-05-22		CFM International	Engine: CFM56-2, -2A, -2B, -3, -3B, and -3C Series
2000-06-08	S 98-01-15	Airbus	A330-301, -321, -322, -341, -342, A340-211, -212, -213 +
2000-06-13	S 98-25-06	Boeing	737-200, -200C, -300, -400 Series
2000-07-01	S 98-13-34	Embraer-Empresa Brasileira	EMB-145 Series
2000-07-02		McDonnell Douglas	MD-11 Series
2000-07-51	E	McDonnell Douglas	717-200 Series
<b>Biweekly 2000-08</b>			
2000-01-05	S 99-18-03	Boeing	747-100B, -200, -300, and SP Series
2000-05-03		Airbus	A300-600 and A310 Series
2000-05-12		Rolls-Royce	Engine: RB211-524G2-19, RB211-524G3-19, +
2000-05-13		Boeing	737-100, -200, -300, -400, and -500 Series
99-13-08 R1		Lockheed	L-1011-385 Series
99-23-22 R2	Recission	Transport Category Airplanes	Appliance: Mode "C" Transponder
2000-07-05	S 99-07-06	Boeing	767 Series
2000-07-06		Boeing	737-100, -200, -200C, -300, -400, and -500 Series
2000-07-07		Airbus	A300 Series
2000-07-08		Boeing	777 Series
2000-07-10		Boeing	747-200B, -300, -400, -400D, -400F Series
2000-07-11		Industrie Aero. Mec.	Piaggio P-180
2000-07-13		Boeing	757-200, -200PF Series
2000-07-14		McDonnell Douglas	MD-11 Series
2000-07-15		McDonnell Douglas	MD-11 Series
2000-07-16	S 94-11-06	McDonnell Douglas	MD-11 and MD-11F Series

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2000-07-18		McDonnell Douglas	MD-11 and MDj-11F Series
2000-07-20		McDonnell Douglas	MD-11 Series
2000-07-21		McDonnell Douglas	MD-11 Series
2000-07-22		Airbus	A300-600 Series
2000-07-23		Bombardier	DHC-8-100 Series
2000-07-24		Fokker	F.28 Mark 0070 and 0100
2000-07-25		Gulfstream Aerospace	G-IV Series
2000-07-27		Transport Category Airplanes	Appliance: Honeywell Air Data Inertial Reference Unit
2000-07-28	S 99-18-22	Fokker	F27 Series
2000-07-29	S 98-16-09	Airbus	A300, A310, and A300-600 Series
2000-08-01		Rolls-Royce	Engine: Tay 650-15 Series Turbofan
2000-08-03	S 2000-05-01	McDonnell Douglas	MD-11 Series

### Biweekly 2000-09

95-19-04 R1	Rescission	Learjet	35, 35A, 36, 36A, 55, 55B, and 55C
99-27-14	COR S 99-01-15	Airbus industrie	A340-211, -212, -213, -311, -312, and -313 Series
2000-05-06		Raytheon Aircraft Company	400A series and 400T Series
2000-07-04		Dornier Luftfahrt GMBH	328-100 series
2000-07-09		Boeing	737-600, -700, and -800 series
2000-07-12		Boeing	727-100, -100C, and -200 Series
2000-07-17		McDonnell Douglas	MD-11 Series
2000-07-19		McDonnell Douglas	MD-11 Series
2000-07-26		Airbus Industrie	A300 Series
2000-07-51		McDonnell Douglas	717-200 Series
2000-08-07	S 96-24-16	Raytheon Aircraft Co	BAe 125-800A and BAe 125-800B, Hawker 800, +
2000-08-08		Boeing	737-600, -700, and -800 Series
2000-08-10	S 99-08-17	General Electric Company	Engine: GE90-76B/ -77B/ -85B/ -90B/ -92B Series
2000-08-11	S 99-08-18	General Electric Company	Engine: CF6-6, CF6-45, and CF6-50 Series
2000-08-12	S 99-08-13	General Electric Company	Engine: CF6-80A, CF6-80C2, and CF6-80E1 Series
2000-08-13		Learjet	45
2000-08-14		Boeing	747 Series
2000-08-15		Boeing	777 Series
2000-08-17		Boeing	737-100, -200, -300, -400, and -500 Series
2000-08-19		Boeing	727 and 727C series
2000-08-20		Lockheed	L-1011-385-1, -1-14, -1-15, and -3 Series
2000-08-21		Boeing	747 Series
2000-09-01	S 93-20-02	McDonnell Douglas	DC-8 Series
2000-09-02		McDonnell Douglas	DC-8 Series
2000-09-03	S 2000-02-33	Boeing	747-400 Series
2000-09-04	S 2000-02-20	Boeing	767 Series
2000-09-05		Allison Engine Company	Engine: AE 3007A, AE 3007A1, AE 3007A1/1, +

### Biweekly 2000-10

2000-08-18		McDonnell Douglas	DC-9 series, MD-88, MD-90-30
2000-09-07		McDonnell Douglas	DC-10-10, -15, -30, -30F, and -40 Series, +
2000-09-08		Boeing	747-100, -200, 747SP, and 747SR Series
2000-09-09	S 99-01-12	Embraer - Empresa Brasileira	EMB-145
2000-09-10		Airbus Industrie	A300-600 Series
2000-09-11		Fokker Services BV	F.28 Mark 0070
2000-09-12		Raytheon Aircraft Company	400A series, 400T (T-1A) Series, 400T (TX) Series
2000-09-13		British Aerospace	Jetstream 3201
2000-09-14		Rolls-Royce	Engine: RB211-535 Series

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### Biweekly 2000-10...Cont'd

2000-10-02		Airbus	All A319, A320, A321, A330, and A340 Series
2000-10-03		McDonnell Douglas	DC-10 Series
2000-10-51	E	Boeing	767 Series

### Biweekly 2000-11

2000-04-05	C	Israel Aircraft Industries	Astra SPX Series
2000-10-01	S 96-08-08	Airbus Industrie	A300 B2, A300 B2K, A300 B2-200, A300 B4-2C, +
2000-10-04		Israel Aircraft Industries	1124 and 1124A Westwind
2000-10-11		Gulfstream Aerospace	G-159 Series
2000-10-12		Boeing	747-400 Series
2000-10-15	S 93-08-15	Airbus Industrie	A320 Series
2000-10-16	S 98-14-11	Airbus Industrie	A319, A320, and A321 Series
2000-10-17		Boeing	747 Series
2000-10-18	S 96-11-05	Airbus Industrie	A300, A300-600, and A310 Series
2000-10-19		Israel Aircraft Industries	1125 Westwind Astra and Astra SPX Series
2000-10-21		Boeing	737-300, -400, and -500 Series
2000-10-23	S 97-26-21	Boeing	747-100, 747-200, 747-300, 747SR, and 747SP Series
2000-11-01		McDonnell Douglas	DC-9-81 (MD-81), DC-9-82 (MD-82), +
2000-11-02		McDonnell Douglas	DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, +

### Biweekly 2000-12

2000-10-20		Lockheed	L-1011-385 Series
2000-10-51		Boeing	767 Series
2000-11-03		Dassault Aviation	Falcon 2000, Mystere-Falcon 900, Falcon 900EX, +
2000-11-06		Boeing	767 Series
2000-11-07	S 97-05-01	Boeing	747-200, -300, and -400 Series
2000-11-08	S 98-08-23	Boeing	747 and 767 Series
2000-11-09		Airbus	A319, A320, and A321 Series
2000-11-10	S 94-18-03	Rolls-Royce	Engine: RB211-22B and -524 Series
2000-11-11		Boeing	777-200 Series
2000-11-12		General Electric Company	Engine: CF6-45/50 Series
2000-11-13		Fokker Services	F.28 Mark 1000, 2000, 3000, and 4000 Series
2000-11-15		AlliedSignal (Honeywell)	Engine: ALF502R and LF507 Series
2000-11-19		Boeing	767-200 and -300 Series
2000-11-20		Bombardier Inc.	DHC-8-100 and -300 Series
2000-11-21		Airbus Industrie	A319, A320, and A321 Series
2000-11-22		Allison Engine	Engine: AE 3007A, AE3007A1/1, AE 3007A1/2, +
2000-11-23		Airbus Industrie	A300, A310, and A300-600 Series
2000-11-24		British Aerospace Regional	ATP
2000-11-25		Airbus Industrie	A320-232 and -233 Series
2000-11-26		Airbus Industrie	A330 and A340 Series
2000-11-27		Airbus Industrie	A319, A320, and A321 Series
2000-11-28		Boeing	747-400, 767-200 and -300 Series
2000-11-29		Fokker Services	F27 Mark 050, 100, 200, 300, 400, 500, 600, +
2000-12-01	S 99-08-16	CFM International	Engine: CFM56-2, -2A, -2B, -3, -3B, -3C, -5, -5B, +
2000-12-02	S 99-08-15	Pratt & Whitney	Engine: PW4050, PW4052, PW4056, PW4060, +
2000-12-04	S 97-11-01	Airbus Industrie	A319, A320, and A321 Series
2000-12-05	S 99-08-11	International Aero Engines	Engine: AG (IAE) V2500-A1/-A5/-D5 Series
2000-12-06		Airbus Industrie	A330 and A340 Series
2000-12-07		Saab Aircraft	SAAB SF340A, and SAAB 340B Series
2000-12-15		Dassault Aviation	Falcon 2000, Mystere-Falcon 900, Falcon 900EX, +

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### Biweekly 2000-13

95-26-03	S 95-15-51	Pratt & Whitney	Engine: JT8D-1, -1A, -1B, -7, -7A, -7B, -9, -9A, -11, -15, +
2000-12-08		General Electric Company	Engine: CF6-80C2A1/A2/A3/A5/A5F/A8/D1F
2000-12-11	S 95-07-05	Airbus Industrie	A300-600 Series
2000-12-12	S 95-10-03	Airbus Industrie	A300, A300-600, A310 Series
2000-12-13	S 97-21-10	Airbus Industrie	A319, A320, and A321 Series
2000-12-14		SAAB Aircraft	SF340A and 340B Series
2000-12-16	S 99-05-06	Boeing	747 Series
2000-12-17		Boeing	767 Series
2000-12-18		Rolls Royce	Engine: Dart 511, 511-7E, 514-7, 528, 528-7E, 529-7E, +
2000-12-19		Boeing	747 Series
2000-12-20		Airbus Industrie	A310 Series
2000-12-21		Boeing	747-400 Series
2000-13-02		Embraer-Empresa Brasileira	EMB-135 and EMB-145 Series
2000-13-03		McDonnell Douglas	DC-8 Series
2000-13-04	S 99-25-13 C1	Boeing	777-200 and -300 Series

### Biweekly 2000-14

2000-09-01 R1	S 93-20-02	McDonnell Douglas	DC-8 Series
2000-13-01		Allison Engine	Engine: AE 3007A and AE 3007C Series
2000-13-05		Rolls-Royce	Engine: RB211 Trent 768-60, Trent 772-60, +
2000-13-07		Airbus Industrie	A330 and A340 Series
2000-13-09		SAAB Aircraft	SAAB 2000 Series
2000-13-51	E	Boeing	737-200 and -300 Series
2000-14-08		New Piper Aircraft	PA-42, PA-42-720, PA-42-720R, and PA-42-1000

**MCDONNELL DOUGLAS  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**REVISION Issued July 2000**

**2000-09-01 R1 MCDONNELL DOUGLAS:** Amendment 39-11809. Docket 99-NM-338-AD. Supersedes AD 93-20-02, Amendment 39-8709.

Applicability: Model DC-8 series airplanes that have been converted from a passenger to a cargo-carrying ("freighter") configuration in accordance with Supplemental Type Certificate (STC) SA1802SO or SA421NW; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (g)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent opening of the cargo door while the airplane is in flight, and consequent rapid decompression of the airplane including possible loss of the door, flight control, or severe structural damage, accomplish the following:

**RESTATEMENT OF REQUIREMENTS OF AD 93-20-02**

**Actions Addressing the Main Deck Cargo Door**

(a) Within 7 days after January 21, 1992 (the effective date of AD 92-02-05, amendment 39-8141), and thereafter at intervals not to exceed 100 hours time-in-service, perform the following inspections:

(1) Inspect the cargo door wire bundle between the exit point of the cargo liner and the attachment point on the cargo door to detect crimped, frayed, or chafed wires; and inspect for damaged, loose, or missing hardware mounting components. Prior to further flight, repair any damaged wiring or hardware mounting components in accordance with FAA-approved maintenance procedures.

(2) Inspect the cargo door latch rollers in the lower sill of the cargo door opening of the airplane to ensure that all twelve rollers can be freely rotated by hand. Prior to further flight, replace any discrepant roller components found, and repair any rollers that cannot be rotated freely by hand, in accordance with FAA-approved maintenance procedures.

(b) Within 7 days after November 17, 1993 (the effective date of AD 93-20-02, amendment 39-8709), revise the Limitations Section of the appropriate FAA-approved Airplane Flight Manual Supplement (AFMS) by replacing item 5 in the AFMS for SA1802SO, and item 6 in the AFMS for SA421NW, with the following. (This may be accomplished by inserting a copy of this AD into the AFMS.)

"Prior to initiating the cargo door closing sequence, a flight crew member must verify that the cargo door warning light is illuminated. After the door closing sequence is complete, and visual verification has been made that the latches are closed and the lockpins are properly engaged, a flight crew member must verify that the cargo door warning light is extinguished, and then conduct a PRESS-TO-TEST of the warning light to ensure that the light is operational. Pull the cargo door circuit breakers labeled 'pump' and 'valve' prior to takeoff. Methods for documentation of compliance with the preceding procedures must be approved by the FAA Principal Maintenance Inspector (PMI)."

**NEW REQUIREMENTS OF THIS AD**

**Actions Addressing the Main Deck Cargo Door Powered Lock Systems**

(c) Except as provided by paragraph (f) of this AD, within 30 days after the effective date of this AD, unless previously accomplished within the last 18 months prior to the effective date of this AD, replace the circuit breakers of the main deck cargo door labeled "pump" and "valve" with new circuit breakers.



### **Actions Addressing the Main Deck Cargo Door Hydraulic Systems**

(d) Within 18 months after the effective date of this AD, modify the mechanical and hydraulic systems of the main deck cargo door, in accordance with National Aircraft Service, Inc. (NASI) Service Bulletin SB-99-01, Revision A, dated October 15, 1999.

### **Actions Addressing the Main Deck Cargo Door Indication System**

(e) Within 18 months after the effective date of this AD, modify the indication system of the main deck cargo door to indicate to the pilots whether the main deck cargo door is closed, latched, and locked; install a means to visually inspect the locking mechanism of the main deck cargo door; install a means to remove power to the door while the airplane is in flight; and install a means to prevent pressurization to an unsafe level if the main deck cargo door is not closed, latched, and locked; in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

NOTE 2: Installation of NASI Vent Door System STC ST01116CH, is an approved means of compliance with the requirements of paragraph (e) of this AD.

(f) Compliance with both paragraphs (d) and (e) of this AD constitutes terminating action for the requirements of both paragraphs (a) and (b) of this AD, and the AFMS revision required by paragraph (b) of this AD may be removed. Compliance with paragraph (e) of this AD within 30 days after the effective date of this AD eliminates the requirement to comply with paragraph (c) of this AD.

### **Alternative Methods of Compliance**

(g) (1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA PMI, who may add comments and then send it to the Manager, Los Angeles ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

(2) Alternative methods of compliance to paragraph (a) of AD 93-20-02, amendment 39-8709, approved previously in accordance with that AD, are approved as alternative methods of compliance with only paragraph (b) of this AD.

(3) Alternative methods of compliance to paragraph (b) of AD 93-20-02, amendment 39-8709, approved previously in accordance with that AD, are approved as alternative methods of compliance with only paragraph (a) of this AD.

### **Special Flight Permits**

(h) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

### **Incorporation by Reference**

(i) The modification required by paragraph (d) of this AD shall be done in accordance with National Aircraft Service, Inc. (NASI) Service Bulletin SB-99-01, Revision A, dated October 15, 1999. This incorporation by reference was approved previously by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 as of June 7, 2000 (65 FR 25627, May 3, 2000). Copies may be obtained from National Aircraft Service, Inc. (NASI), 9133 Tecumseh-Clinton Road, Tecumseh, MI 49286. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

### **Effective Date**

(j) The effective date of this amendment remains June 7, 2000.

FOR FURTHER INFORMATION CONTACT: Michael E. O'Neil, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5320; fax (562) 627-5210.

Issued in Renton, Washington, on June 28, 2000.

Ali Bahrami, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

## APPENDIX 1

Excerpt from an FAA Memorandum to Director-Airworthiness and Technical Standards of ATA, dated March 20, 1992

“(1) Indication System:

(a) The indication system must monitor the closed, latched, and locked positions, directly.

(b) The indicator should be amber unless it concerns an outward opening door whose opening during takeoff could present an immediate hazard to the airplane. In that case the indicator must be red and located in plain view in front of the pilots. An aural warning is also advisable. A display on the master caution/warning system is also acceptable as an indicator. For the purpose of complying with this paragraph, an immediate hazard is defined as significant reduction in controllability, structural damage, or impact with other structures, engines, or controls.

(c) Loss of indication or a false indication of a closed, latched, and locked condition must be improbable.

(d) A warning indication must be provided at the door operators station that monitors the door latched and locked conditions directly, unless the operator has a visual indication that the door is fully closed and locked. For example, a vent door that monitors the door locks and can be seen from the operators station would meet this requirement.

(2) Means to Visually Inspect the Locking Mechanism:

There must be a visual means of directly inspecting the locks. Where all locks are tied to a common lock shaft, a means of inspecting the locks at each end may be sufficient to meet this requirement provided no failure condition in the lock shaft would go undetected when viewing the end locks. Viewing latches may be used as an alternate to viewing locks on some installations where there are other compensating features.

(3) Means to Prevent Pressurization:

All doors must have provisions to prevent initiation of pressurization of the airplane to an unsafe level, if the door is not fully closed, latched and locked.

(4) Lock Strength:

Locks must be designed to withstand the maximum output power of the actuators and maximum expected manual operating forces treated as a limit load. Under these conditions, the door must remain closed, latched and locked.

(5) Power Availability:

All power to the door must be removed in flight and it must not be possible for the flight crew to restore power to the door while in flight.

(6) Powered Lock Systems:

For doors that have powered lock systems, it must be shown by safety analysis that inadvertent opening of the door after it is fully closed, latched and locked, is extremely improbable.”

**BW 2000-14**

**ALLISON ENGINE COMPANY, INC.  
AIRWORTHINESS DIRECTIVES  
ENGINE  
LARGE AIRCRAFT**

**2000-13-01 Allison Engine Company, Inc.:** Amendment 39-11800. Docket No. 99-NE-15-AD.

**Applicability**

Allison Engine Company, Inc. AE 3007A and AE 3007C series turbofan engines, installed on, but not limited to, Cessna Aircraft Company 750 series airplanes and Empresa Brasileira de Aeronautica S.A. (Embraer) EMB-145 series airplanes.

**Note 1:** This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance**

Required as indicated, unless accomplished previously.

To prevent an uncontained turbine wheel failure, which could result in damage to the airplane, accomplish the following:

**Remove and Replace**

(a) Remove stage 1 turbine wheels, part numbers (P/Ns) 23065891 and 23062373, and replace with new or serviceable parts as follows:

(1) For stage 1 turbine wheels with serial numbers (SNs) listed in Table 5 of Rolls-Royce Alert Service Bulletin (ASB) AE 3007A-A-72-105 and AE 3007C-A-72-105, dated January 29, 1999, replace before accumulating 9,000 engine cycles since new (CSN).

(2) For all other stage 1 turbine wheel SNs with P/Ns 23065891 and 23062373, replace before accumulating 13,100 engine CSN.

(b) Remove stage 2 turbine wheels, P/Ns 23065892 and 23063462, and replace with new or serviceable parts as follows:

(1) For stage 2 turbine wheels with SNs listed in Table 6 of Rolls-Royce ASB AE 3007A-A-72-105 and AE 3007C-A-72-105, dated January 29, 1999, replace before accumulating 7,800 engine CSN.

(2) For all other stage 2 turbine wheel SNs with P/Ns 23065892 and 23063462, replace before accumulating 8,400 engine CSN.

**Alternative Life Limits**

(c) This AD establishes new cyclic life limits for the turbine wheels identified in paragraphs (a) and (b) of this AD. Except in accordance with paragraph (d) of this AD, no alternative life limits may be approved for the turbine wheels identified in paragraphs (a) and (b) of this AD.

**Alternative Method of Compliance**

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office. Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Chicago Aircraft Certification Office.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Chicago Aircraft Certification Office.

**Special Flight Permits**

(e) Special flight permits may be issued in accordance with §§21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

**Documents Incorporated by Reference**

(f) This AD references Rolls-Royce Alert Service Bulletin AE 3007A-A-72-105/AE 3007C-A-72-105, dated January 29, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Rolls-Royce Allison, P.O. Box 420, Indianapolis, IN 46206-0420; telephone: (888) 255-4766. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**Effective Date**

(g) This amendment becomes effective on September 1, 2000.

**FOR FURTHER INFORMATION CONTACT:**

John Tallarovic, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone (847) 294-8180, fax (847) 294-7834.

Issued in Burlington, Massachusetts, on June 19, 2000.

Jay J. Pardee Manager, Engine and Propeller Directorate, Aircraft Certification Service

**BW 2000-14**

**ROLLS-ROYCE  
AIRWORTHINESS DIRECTIVES  
ENGINE  
LARGE AIRCRAFT**

**2000-13-05 Rolls-Royce plc:** Amendment 39-11804. Docket 2000-NE-05-AD.

**Applicability**

This AD is applicable to Rolls-Royce plc. (RR) RB211 Trent 768-60, Trent 772-60, and Trent 772B-60 turbofan engines with fan blade part numbers (P/N's) FK22580, FK23411, FK25441, and FK25968 installed. These engines are installed on but not limited to Airbus A330-341 and A330-342 series airplanes.

**Note 1:** This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance**

Compliance with this AD is required as indicated below, unless already completed.

To prevent possible multiple fan blade failures, which could result in an uncontained engine failure and damage to the airplane, do the following:

**Ultrasonic Inspections**

(a) Ultrasonically inspect the dovetail roots of all fan blade P/N's FK22580, FK23411, FK25441, and FK25968 with more than 2800 cycles since new (CSN), for cracks as follows:

**Initial Inspection**

(1) Initially inspect the fan blade in accordance with paragraph 3.A.(1) or paragraph 3.B.(1) through paragraph 3.B.(8) of RR service bulletin (SB) No. RB.211-72-C878, revision 1, dated December 10, 1999, at the later of the following:

- (i) Within 200 fan blade cycles in service (CIS) after the effective date of this AD; or
- (ii) Within 200 fan blade CIS of achieving 2800 CSN.

**Repetitive Inspections**

(2) Thereafter, inspect at intervals not to exceed 340 CIS, since last inspection, in accordance with paragraph 3.A.(1) or paragraph 3.B.(1) through paragraph 3.B.(8) of RR SB No. RB.211-72-C878, revision 1, dated December 10, 1999.

**Alternative Methods of Compliance**

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

**Special Flight Permits**

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

**Incorporation by Reference Material**

(d) The actions required by this AD shall be performed in accordance with the following service documents:

Document No.	Pages	Revision	Date
RB.211-72-C878	1 – 2	1	December 10, 1999
	3 – 4	Original	November 19, 1999
	Appendix	Original	November 19, 1999
Total pages: 7			

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Rolls-Royce plc, PO Box 31, Derby, England; telephone: 011-44-1332-249428; fax: 011-44-1332-249223. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**Effective Date of This AD**

(e) This amendment becomes effective on August 2, 2000.

**FOR FURTHER INFORMATION CONTACT:** James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone 781-238-7176; fax 781-238-7199.

Issued in Burlington, Massachusetts, on June 21, 2000.

Mark C. Fulmer, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

**BW 2000-14**

**AIRBUS INDUSTRIE  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**2000-13-07 AIRBUS INDUSTRIE:** Amendment 39-11806. Docket 99-NM-196-AD.

Applicability: Model A330 and A340 series airplanes, certificated in any category, except those on which Airbus Modifications 47487, 47500, 47701, and 47787 have been installed in production.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (k) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent main landing gear (MLG) failure due to fatigue cracking, which could result in reduced structural capability of the airplane and collapse of the MLG, accomplish the following:

**Inspection of the MLG**

(a) Prior to the accumulation of 800 total landings on the MLG, or within 120 landings after the effective date of this AD, whichever occurs later, perform detailed visual and ultrasonic inspections of the MLG to detect fatigue cracks, as specified in either paragraph (a)(1) or (a)(2) of this AD, as applicable.

(1) For Model A330 series airplanes: Accomplish the detailed visual and ultrasonic inspections in accordance with Airbus Service Bulletin A330-32A3088, Revision 02, dated June 10, 1999.

NOTE 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

NOTE 3: Detailed visual and ultrasonic inspections accomplished prior to the effective date of this AD in accordance with Airbus Service Bulletin A330-32A3088, dated October 16, 1998; or Revision 01, dated November 20, 1998; are acceptable methods of compliance for the inspection requirements of paragraph (a)(1) of this AD.

(2) For Model A340 series airplanes: Accomplish the detailed visual and ultrasonic inspections in accordance with Airbus Service Bulletin A340-32A4124, Revision 01, dated November 20, 1998.

NOTE 4: Detailed visual and ultrasonic inspections accomplished prior to the effective date of this AD in accordance with Airbus Service Bulletin A340-32A4124, dated October 16, 1998, are acceptable methods of compliance for the inspection requirements of paragraph (a)(2) of this AD.

**Repetitive Inspections**

(b) If no crack is detected during the inspection required by paragraph (a)(1) or (a)(2) of this AD: Repeat the detailed visual and ultrasonic inspections thereafter at intervals not to exceed 120 landings.

**Corrective Actions**

(c) If any cracking is detected during any inspection required by paragraph (a) or (b) of this AD: Prior to further flight, perform a detailed magnetic particle inspection of the MLG to detect fatigue cracks, in accordance with Airbus Service Bulletin A330-32A3088, Revision 02, dated June 10, 1999, or Airbus Service Bulletin A340-32A4124, Revision 01, dated November 20, 1998, as applicable; and repair in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, or the Direction Générale de l'Aviation Civile (DGAC) (or its delegated agent). For a repair method to be approved by the Manager, International Branch, ANM-116, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

## **Reporting**

(d) Within 10 days after accomplishing any inspection required by paragraph (a), (b), or (c) of this AD, report the inspection results (both positive and negative) to Airbus Industrie at fax 33(0) 5 61 93 32 73. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*) and have been assigned OMB Control Number 2120-0056.

### **Replacement of Nose Wheel Steering Handwheel Controllers or Software Modification**

(e) Within 20 days after the effective date of this AD, replace the nose wheel steering handwheel controllers with new controllers, or modify the functional software of the brake steering and control unit (BSCU), as specified in either paragraph (e)(1) or (e)(2) of this AD, as applicable.

(1) For Model A330 series airplanes: Replace the controllers in accordance with Airbus Service Bulletin A330-32-3091, Revision 01, dated December 2, 1998, or modify the functional software of the BSCU in accordance with Airbus Service Bulletin A330-32-3092, Revision 02, dated June 10, 1999.

NOTE 5: Replacement of nose wheel steering handwheel controllers with new controllers accomplished prior to the effective date of this AD in accordance with Airbus Service Bulletin A330-32-3091, dated November 19, 1998, is an acceptable method of compliance for the replacement requirements of paragraph (e)(1) of this AD.

NOTE 6: Modification of the functional software of the BSCU accomplished prior to the effective date of this AD in accordance with Airbus Service Bulletin A330-32-3092, dated December 18, 1998; or Revision 01, dated February 24, 1999; is an acceptable method of compliance for the software modification requirements of paragraph (e)(1) of this AD.

(2) For Model A340 series airplanes: Replace the controllers in accordance with Airbus Service Bulletin A340-32-4128, Revision 01, dated December 2, 1998, or modify the functional software of the BSCU in accordance with Airbus Service Bulletin A340-32-4131, Revision 01, dated June 10, 1999.

NOTE 7: Replacement of nose wheel steering handwheel controllers with new controllers accomplished prior to the effective date of this AD in accordance with Airbus Service Bulletin A340-32-4128, dated November 19, 1998, is an acceptable method of compliance for the replacement requirements of paragraph (e)(2) of this AD.

NOTE 8: Modification of the functional software of the BSCU accomplished prior to the effective date of this AD in accordance with Airbus Service Bulletin A340-32-4131, dated February 24, 1999, is an acceptable method of compliance for the software modification requirements of paragraph (e)(2) of this AD.

## **Replacement of Placards**

(f) Within 20 days after the effective date of this AD, replace the placards on the left- and right-hand sides of the aft mechanically-operated nose landing gear doors with new placards, as specified in either paragraph (f)(1) or (f)(2) of this AD, as applicable.

(1) For Model A330 series airplanes: Replace placards in accordance with Airbus Service Bulletin A330-32-3089, dated November 2, 1998.

(2) For Model A340 series airplanes: Replace placards in accordance with Airbus Service Bulletin A340-32-4126, dated November 2, 1998.

## **Installation of a Software Program**

(g) Within 20 days after the effective date of this AD, accomplish either paragraph (g)(1) or (g)(2) of this AD, as applicable.

(1) For Model A330-200 series airplanes: Install a software program that automatically records all nose wheel steering angle exceedance above 63 degrees into the Aircraft Condition Monitoring System (ACMS) [i.e., modify the new setup database software by adding the existing operator customized version; and upload the setup database software to the data management unit (DMU)] in accordance with Airbus Service Bulletin A330-31-3033, dated September 13, 1999.

(2) For Model A330-300 and Model A340 series airplanes: Install a software program that automatically records all nose wheel steering angle exceedance above 67 degrees into the ACMS (i.e., modify the new setup database software by adding the existing operator customized version; and upload the setup database software to the DMU) in accordance with Airbus Service Bulletin A330-31-3033, dated September 13, 1999 (for Model A330-300 series airplanes), or Airbus Service Bulletin A340-31-4047, dated September 13, 1999 (for Model A340 series airplanes); as applicable.



### **Incorporation of Ground and Crew Operating Procedures**

(h) Within 20 days after the effective date of this AD, revise the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) by inserting the procedures to incorporate ground operating procedures to limit the nose wheel steering angle for pushback and towing and to limit nose wheel steering for powered turns, in accordance with Flight Operations TELEX (FOT) 999.0099/98, Revision 5, dated May 21, 1999.

### **Corrective Actions for Exceedance of Nose Wheel Steering Angle**

(i) For Model A330-200 series airplanes: If, after 20 days from the effective date of this AD, a 63-degree hand wheel steering is exceeded, a 63 degrees is recorded on the ACMS, or a 60-degree steering is exceeded during towing or pushback, within 4 landings after each occurrence, accomplish the actions required by paragraph (a) of this AD.

(j) For Model A330-300 and Model A340 series airplanes: If, after 20 days from the effective date of this AD, a 65-degree hand wheel steering is exceeded, a 67 degrees is recorded on the ACMS, or a 60-degree steering is exceeded during towing or pushback; within 4 landings after each occurrence, accomplish paragraph (j)(1) and (j)(2) of this AD, as applicable.

(1) Accomplish the actions required by paragraph (a) of this AD.

(2) For airplanes on which Airbus Modification 46804 has been accomplished: Reinstall a positive stop and re-rig the tiller as specified in either paragraph (j)(2)(i) or (j)(2)(ii) of this AD, as applicable.

(i) For Model A330-300 series airplanes: Reinstall a stop and re-rig in accordance with Airbus Service Bulletin A330-32-3091, Revision 01, dated December 2, 1998.

(ii) For Model A340 series airplanes: Reinstall a stop and re-rig in accordance with Airbus Service Bulletin A340-32-4128, Revision 01, dated December 2, 1998.

### **Alternative Methods of Compliance**

(k) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

NOTE 9: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

### **Special Flight Permits**

(l) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

### **Incorporation by Reference**

(m) Except for the repair required by paragraph (c) of this AD: The actions shall be done in accordance with the following Airbus service bulletins and telex, as applicable.

<b>Airbus Service Bulletin Number</b>	<b>Revision Level</b>	<b>Service Bulletin Date</b>
A330-32A3088	02	June 10, 1999
A340-32A4124	01	November 20, 1998
A330-32-3091	01	December 2, 1998
A330-32-3092	02	June 10, 1999
A340-32-4128	01	December 2, 1998
A340-32-4131	01	June 10, 1999
A330-32-3089	Original	November 2, 1998
A340-32-4126	Original	November 2, 1998
A330-31-3033	Original	September 13, 1999
A340-31-4047	Original	September 13, 1999
Flight Operations TELEX 999.0099/98	Revision 5	May 21, 1999

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 10: The subject of this AD is addressed in French airworthiness directives 1998-475-103(B)R1; 1998-473-083(B)R1; and 1999-160-096(B); all dated April 21, 1999.

(n) This amendment becomes effective on August 7, 2000.

FOR FURTHER INFORMATION CONTACT: Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on June 22, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BW 2000-14**

**SAAB AIRCRAFT AB  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**2000-13-09 SAAB AIRCRAFT AB:** Amendment 39-11808. Docket 99-NM-368-AD.

Applicability: Model SAAB 2000 series airplanes, serial numbers -004 through -063 inclusive; certificated in any category.

**NOTE 1:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent failure of the backup struts in the left and right nacelles due to fatigue cracking, which could result in loss of fail-safe redundancy in the design of the nacelle in terms of load capability, accomplish the following:

**Repetitive Inspections**

(a) For airplanes on which the dye penetrant inspection of the backup struts in the left and right nacelles specified in Saab Alert Service Bulletin 2000-A54-022, dated October 27, 1999, has not been accomplished prior to the effective date of this AD: Within 200 flight hours after the effective date of this AD, accomplish paragraphs (b)(1) and (b)(2) of this AD in accordance with the Accomplishment Instructions of Saab Service Bulletin 2000-54-023, Revision 02, dated February 23, 2000.

**NOTE 2:** Accomplishment of the required actions in accordance with Saab Service Bulletin 2000-54-023, Revision 01, dated January 28, 2000, prior to the effective date of this AD, is acceptable for compliance with this AD.

(b) For airplanes on which the dye penetrant inspection of the backup struts in the left and right nacelle specified in Saab Alert Service Bulletin 2000-A54-022, dated October 27, 1999, has been accomplished prior to the effective date of this AD: Within 450 flight hours after the effective date of this AD, accomplish paragraphs (b)(1) and (b)(2) of this AD in accordance with the Accomplishment Instructions of Saab Service Bulletin 2000-54-023, Revision 02, dated February 23, 2000.

(1) Perform a detailed visual inspection of the upper areas of the backup strut around the welding in the pipe and in the attachment fittings to detect any discrepancy (including fatigue cracking or a failed backup strut) by accomplishing all actions specified in paragraph B.(1) of the Accomplishment Instructions of the service bulletin, in accordance with the service bulletin. Repeat the detailed visual inspection thereafter at intervals not to exceed 450 flight hours.

**NOTE 3:** For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids (e.g., mirror, magnifying lenses) may be used. Surface cleaning and elaborate access procedures may be required."

(2) Perform a dye penetrant inspection, using Penetrant Type 1 (fluorescent dye) sensitivity level 2, of the lower areas of the backup strut around the welding in the pipe and in the attachment fittings to detect any discrepancy (including fatigue cracking or a failed backup strut) by accomplishing all actions specified in paragraphs B.(2) and B.(3) of the service bulletin, as applicable, in accordance with the service bulletin.

(i) For airplanes on which all backup struts have accumulated less than 4,500 total flight hours as of the effective date of this AD, repeat the dye penetrant inspection thereafter at intervals not to exceed 1,650 flight hours, until any backup strut on the airplane has accumulated 4,500 total flight hours; then perform the repetitive inspection thereafter at the interval specified by paragraph (b)(2)(ii) of this AD.

(ii) For airplanes on which any backup strut has accumulated 4,500 or more total flight hours as of the effective date of this AD, repeat the dye penetrant inspection thereafter at intervals not to exceed 900 flight hours.

#### **Corrective Actions**

(c) If any discrepancy (including fatigue cracking, a failed backup strut, or damage to the surrounding structure of the engine mount) is detected during any inspection required by this AD: Prior to further flight, accomplish the applicable corrective actions (including performing additional inspections of the engine mount surrounding structure, and replacing any discrepant backup strut in the hydraulic or electrical bay areas with a new backup strut) specified by paragraph C. of the Accomplishment Instructions of Saab Service Bulletin 2000-54-023, Revision 02, dated February 23, 2000, in accordance with the service bulletin. For any repair condition for which the service bulletin specifies to contact the manufacturer for appropriate action: Prior to further flight, repair in accordance with a method approved by either the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Luftfartsverket (LFV) (or its delegated agent). For a repair method to be approved by the Manager, International Branch, ANM-116, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

#### **Alternative Methods of Compliance**

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

**NOTE 4:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

#### **Special Flight Permits**

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

#### **Incorporation by Reference**

(f) Except as provided by paragraph (c) of this AD, the actions shall be done in accordance with Saab Service Bulletin 2000-54-023, Revision 02, dated February 23, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Saab Aircraft AB, SAAB Aircraft Product Support, S-581.88, Linköping, Sweden. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**NOTE 5:** The subject of this AD is addressed in Swedish airworthiness directive No. 1-150R1, dated January 31, 2000.

(g) This amendment becomes effective on August 11, 2000.

#### **FOR FURTHER INFORMATION CONTACT:**

Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on June 28, 2000.

Donald L. Riggan, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BW 2000-14**

**BOEING  
AIRWORTHINESS DIRECTIVES  
EMERGENCY  
LARGE AIRCRAFT**

**2000-13-51 BOEING:** Docket No. 2000-NM-216-AD.

Applicability: Model 737-200 and -300 series airplanes equipped with a main deck cargo door installed in accordance with Supplemental Type Certificate (STC) SA2969SO; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct cracking of the lower portion of the main deck cargo door frames, which could result in sudden depressurization, loss or opening of the main deck cargo door during flight, and loss of control of the airplane, accomplish the following:

(a) Prior to the next flight after receipt of this AD, perform a special detailed inspection using a borescope to detect cracking of the main deck cargo door frames, their existing reinforcing angles (where applicable), and the attach holes of the latch fittings between frame station (FS) 361.87 and FS 498.12, and between water line (WL) 202.35 and WL 213.00, in the area where the main deck cargo door latch fittings attach to the frames.

(1) If no cracking is detected, repeat the inspection thereafter at intervals not to exceed 150 flight cycles.

(2) If any cracking is detected, prior to further flight, accomplish the requirements of either paragraph (a)(2)(i) or (a)(2)(ii) of this AD.

(i) Replace all discrepant parts with new parts having the same part numbers and repeat the special detailed inspection using a borescope thereafter at intervals not to exceed 150 flight cycles.

(ii) Repair in accordance with a method approved by the Manager, Atlanta Aircraft Certification Office (ACO), FAA.

NOTE 2: For the purpose of this AD a special detailed inspection is defined as: "An intensive examination of a specific item(s), installation, or assembly to detect damage, failure, or irregularity. The examination is likely to make extensive use of specialized inspection techniques and or equipment. Intricate cleaning and substantial access or disassembly procedure may be required."

**Reporting Requirements**

(b) Within 10 days after accomplishing the actions required by paragraph (a) of this AD, submit a report of any findings of cracking to the Manager, FAA, Atlanta ACO, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia, fax (770) 703-6097. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

**Alternative Methods of Compliance**

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta ACO.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta ACO.

**Special Flight Permits**

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(e) **AD 2000-13-51, issued on July 3, 2000, becomes effective upon receipt.**

FOR FURTHER INFORMATION CONTACT: Rany Azzi, Aerospace Engineer, Airframe and Propulsion Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30337-2748, telephone (770) 703-6083; fax (770) 703-6097.

Issued in Renton, Washington, on July 3, 2000.

John J. Hickey, Manager, Transport Airplane Directorate, Aircraft Certification Service.

**BW 2000-14**

**THE NEW PIPER AIRCRAFT, INC.  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**2000-14-08 THE NEW PIPER AIRCRAFT, INC.:** Amendment 39-11817; Docket No. 2000-CE-20-AD.

(a) **What airplanes are affected by this AD?** Models PA-42, PA-42-720, PA-42-720R, and PA-42-1000 airplanes, all serial numbers, that are:

- (1) equipped with pneumatic deicing boots; and
- (2) certificated in any category.

(b) **Who must comply with this AD?** Anyone who wishes to operate any of the above airplanes on the U.S. Register must comply with this AD. The AD does not apply to your airplane if it is not equipped with pneumatic de-icing boots.

(c) **What problem does this AD address?** The information necessary to activate the pneumatic wing and tail deicing boots at the first signs of ice accumulation is critical for flight in icing conditions. If we did not take action to include this information, flight crews could experience reduced controllability of the aircraft due to adverse aerodynamic effects of ice adhering to the airplane prior to the first deicing cycle.

(d) **What must I do to address this problem?** To address this problem, you must revise the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) to include the following requirements for activation of the ice protection systems. You must accomplish this action within the next 10 calendar days after August 21, 2000 the (effective date of this AD), unless already accomplished. You may insert a copy of this AD in the AFM to accomplish this action:

“• Except for certain phases of flight where the AFM specifies that deicing boots should not be used (e.g., take-off, final approach, and landing), compliance with the following is required.

- Wing and Tail Leading Edge Pneumatic Deicing Boot System, if installed, must be activated:

--At the first sign of ice formation anywhere on the aircraft, or upon annunciation from an ice detector system, whichever occurs first; and

--The system must either be continued to be operated in the automatic cycling mode, if available; or the system must be manually cycled as needed to minimize the ice accretions on the airframe.

- The wing and tail leading edge pneumatic deicing boot system may be deactivated only after:

--leaving known or observed/detected icing that the flight crew has visually observed on the aircraft or was identified by the on-board sensors; and

--after the airplane is determined to be clear of ice.”

**Note:** The FAA recommends periodic treatment of deicing boots with approved ice release agents, such as ICEX , in accordance with the manufacturer's application instructions.

(e) **Can the pilot accomplish the action?** Anyone who holds at least a private pilot certificate, as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), may incorporate the AFM revisions required by this AD. You must make an entry into the aircraft records that shows compliance with this AD, in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(f) **Can I comply with this AD in any other way?** You may use an alternative method of compliance or adjust the compliance time if:

- (1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Small Airplane Directorate, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106.

**Note:** This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(g) **Where can I get information about any already-approved alternative methods of compliance?** Contact S.M. Nagarajan, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4145; facsimile: (816) 329-4090.

(h) **What if I need to fly the airplane to another location to comply with this AD?** The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(i) **When does this amendment become effective?** This amendment becomes effective on August 21, 2000.

FOR FURTHER INFORMATION CONTACT: S.M. Nagarajan, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4145; facsimile: (816) 329-4090.

Issued in Kansas City, Missouri, on July 3, 2000.

Marvin R. Nuss, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.